cont'd. 81

wherein said aryl radical is a carboaryl, a heteroaryl or a mixed carboaryl-heteroaryl radical and at least two of said aryl radicals are positively charged, and a pharmaceutically acceptable carrier.

--59. The pharmaceutical composition according to claim 58, wherein said growth factor receptor tyrosine kinase is selected from the group consisting of fibroblast growth factor (FGF) receptor tyrosine kinase, epidermal growth factor (EGF) receptor tyrosine kinase, heparin-binding EGF-like growth factor (HB-EGF) receptor tyrosine kinase, platelet derived growth factor (PDGF) receptor tyrosine kinase, vascular endothelial growth factor (VEGF) receptor tyrosine kinase, nerve growth factor (VGF) receptor tyrosine kinase, hepatocyte growth factor (HGF) receptor tyrosine kinase, insulin receptor tyrosine kinase and insulin-like growth factor (IGF) receptor tyrosine kinase.

--60. The pharmaceutical composition according to claim 59 for inhibition of cell proliferation mediated by growth factor receptor tyrosine kinase activity.

--61. The pharmaceutical composition according to claim 60 for: (i) inhibition of angiogenesis; (ii) inhibition of vascular smooth muscle cell proliferation in disorders including atherosclerosis, hypertrophic heart failure and postsurgical restenosis; (iii) inhibition of cell proliferation and migration in the treatment of primary tumors

Sub C2

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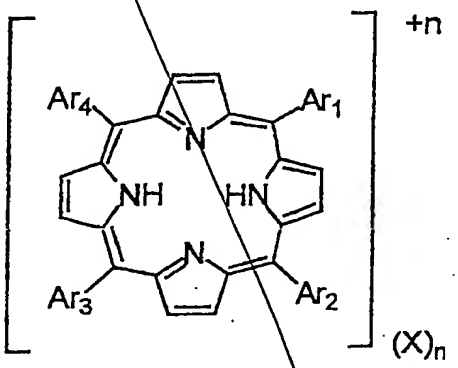
and metastasis; (iv) treatment of nonmalignant tumors such as benign prostate hypertrophy; (v) treatment of diabetic retinopathy, psoriasis, rheumatoid arthritis, and other disorders including retrolental fibroplasia, macular degeneration, hemangioma, arteriovenous malformation, hypertrophic scars, acne, scleroderma and autoimmune diseases.

Sub C2

--62. The pharmaceutical composition according to claim 59 for the treatment of bone and cartilage related disorders including inherited skeletal disorders, e.g. achondroplasia, dwarfism, craniosynostosis.

--63. The pharmaceutical composition according to claim 58 wherein the 5,10,15,20-tetraaryl-porphyrin has the formula:



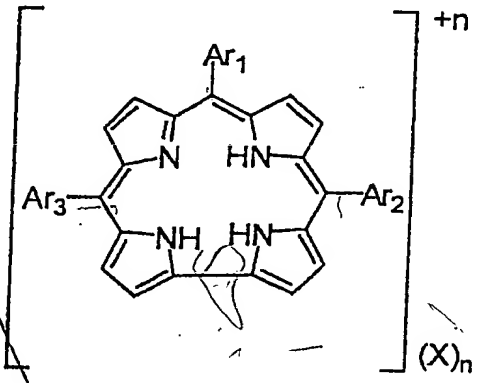
wherein Ar_1 , Ar_2 , Ar_3 , and Ar_4 , the same or different, are each an aryl radical selected from the group consisting of a carboaryl, a heteroaryl and a mixed carboaryl-heteroaryl radical, at least two of said aryl radicals being positively

contd. B1

charged, n is an integer from 2 to 4 and X is a pharmaceutically acceptable anion.

--64. The pharmaceutical composition according to claim 58 wherein the 5,10,15,20-triaryl-corrole has the formula:

Sub C2



wherein Ar_1 , Ar_2 , and Ar_3 , the same or different, are each an aryl radical selected from the group consisting of a carboaryl, a heteroaryl and a mixed carboaryl-heteroaryl radical, at least two of said aryl radicals being positively charged, n is an integer from 2 to 3 and X is a pharmaceutically acceptable anion.

--65. The pharmaceutical composition according to claim 63, wherein said carboaryl radical by itself or as part of the mixed carboaryl-heteroaryl radical is a substituted monocyclic or bicyclic aromatic radical and said heteroaryl radical is a substituted 5-6 membered aromatic ring containing 1-3 heteroatoms selected from the group consisting of O, S and/or N.

contd. B1

--66. The pharmaceutical composition according to claim 65, wherein said carboaryl radical is selected from the group consisting of phenyl, biphenyl and naphthyl substituted by one or more halogen atoms, and/or one or more C_1-C_8 alkyl, C_1-C_8 alkoxy, C_1-C_8 alkylamino, amino-(C_1-C_8) alkylamino, and tri-(C_1-C_8) alkylammonium radicals.

--67. The pharmaceutical composition according to claim 66, wherein said carboaryl radical is phenyl substituted by fluoro and optionally by tri-(C_1-C_8) alkylammonium or amino-(C_1-C_8) alkylamino.

--68. The pharmaceutical composition according to claim 67, wherein one or two of said carboaryl radicals is pentafluorophenyl and/or 4-aminopropylamino-2,3,5,6-tetrafluorophenyl.

Sub C3

--69. The pharmaceutical composition according to claim 67, wherein one to four of said carboaryl radicals is 4-trimethylammoniophenyl or 4-trimethylammonio-2,3,5,6-tetrafluorophenyl.

--70. The pharmaceutical composition according to claim 65, wherein said heteroaryl radical by itself or as part of a mixed carboaryl-heteroaryl radical is selected from the group consisting of furyl, thienyl, pyrrolyl, imidazolyl, thiazolyl, pyridyl, pyrimidyl, triazinyl substituted by one or more halogen atoms, and/or one or more C_1-C_8 alkyl, C_1-C_8

contd. B1

alkoxy, C_1-C_8 alkylamino, amino-(C_1-C_8) alkylamino, and tri-(C_1-C_8) alkylammonium radicals.

--71. The pharmaceutical composition according to claim 70, wherein said one to four of said heteroaryl radicals is N-(C_1-C_8 alkyl)-pyridylium.

Sub C3

--72. The pharmaceutical composition according to claim 71, wherein said radical is selected from the group consisting of 2-, 3- or 4-(N-methyl) pyridylium.

--73. The pharmaceutical composition according to claim 63, wherein said mixed carboaryl-heteroaryl radical is 4-(N-methyl-2-pyridylium)-2,3,5,6-tetrafluoro-phenyl.

--74. The pharmaceutical composition according to claim 58, wherein said porphyrin compound is selected from the group consisting of the compounds herein designated **P1**, **P5**, **P6**, **P7**, **P8**, **P9**, **P10**, **P15**, **P16**, **P17**, **P18**, **P19** and **P20**, namely:

P1 5,10,15,20-tetrakis(N-methyl-4-pyridylium)-21H,23H-porphine tetra-p-tosylate

P5 5,10,15,20-tetrakis[4-(trimethylammonio) phenyl]-21H,23H-porphine tetra-p-tosylate

P6 5,10,15,20-tetrakis (N-methyl-4-pyridylium)-21H,23H-porphine aluminium hydroxide tetraiodide

P7 5,10,15,20-tetrakis(N-methyl-2-pyridylium)-21H,23H-porphine tetraiodide

contd #1

P8 5,10,15,20-tetrakis(N-methyl-4-pyridylium)-21H,23H-porphine tetraiodide

P9 5,10,15,20-tetrakis(N-methyl-2-pyridylium)-21H,23H-porphine tetra-p-tosylate

P10 3,8,13,18-tetrakis(N-methyl-4-pyridylium)-21H,23H-porphine tetraiodide

Sub C3

P15 5,10,15,20-tetrakis(2,3,5,6-tetrafluoro-4-trimethylammonio-phenyl)-21H,23H-methyl-porphine tetra-trifluoromethylsulfonate

P16 5-pentafluorophenyl-10,15,20-tris(N-methyl-4-pyridylium)-21H,23H-porphine triiodide

P17 5,15-bis(pentafluorophenyl)-10,20-bis(N-methyl-4-pyridylium)-21H,23H-porphine diiodide

P18 5,10-bis(pentafluorophenyl)-15,20-bis(N-methyl-4-pyridylium)-21H,23H-porphine diiodide

P19 5,10,15-tris(N-methyl-4-pyridylium)-20-(2,3,5,6-tetrafluoro-4-aminopropyl-amino-phenyl)-21H,23H-porphine triiodide

P20 5,10,15,20-tetrakis[4-(N-methyl-2-pyridylium) 2,3,5,6-tetrafluoro-phenyl]-21H,23H-porphine tetraiodide

--75. The pharmaceutical composition according to claim 58 wherein said corrole compound is 5,10,15-tris[2,3,5,6-tetrafluorophenyl-4-(N-methyl-2-pyridylium)]-21H,23H-corrole triiodide, herein designated **P21**.

--76. The pharmaceutical composition according to claim 61 for inhibition of angiogenesis comprising the compound 5,10,15,20-tetrakis(N-methyl-4-pyridylium)-21H,23H-porphine tetra-p-tosylate or 5,10,15-tris[2,3,5,6-tetrafluorophenyl-4-(N-methyl-2-pyridylium)]-21H,23H-corrole triiodide.

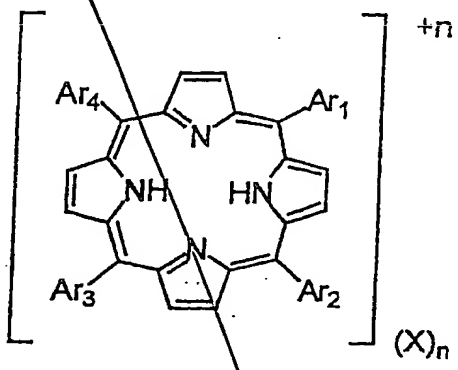
--77. The pharmaceutical composition according to claim 61 for inhibition of vascular smooth muscle cell proliferation in postsurgical restenosis comprising the compound 5,10,15,20-tetrakis(N-methyl-4-pyridylium)-21H,23H-porphine tetra-p-tosylate or 5,10,15,20-tetrakis[4-(N-methyl-2-pyridylium) 2,3,5,6-tetrafluoro-phenyl]-21H,23H-porphine tetraiodide.

--78. The pharmaceutical composition according to claim 61 for inhibition of cell proliferation and migration in the treatment of primary tumors and metastasis comprising a compound selected from the group consisting of the compounds 5,10,15,20-tetrakis(N-methyl-4-pyridylium)-21H,23H-porphine tetra-p-tosylate; 5,10,15,20-tetrakis[4-(trimethylammonio) phenyl]-21H,23H-porphine tetra-p-tosylate; 5,10,15,20-tetrakis(N-methyl-2-pyridylium)-21H,23H-porphine tetraiodide; 5,10,15,20-tetrakis[4-(N-methyl-2-pyridylium) 2,3,5,6-tetrafluoro-phenyl]-21H,23H-porphine tetraiodide; and 5,10,15-tris[2,3,5,6-tetrafluorophenyl-4-(N-methyl-2-pyridylium)]-21H,23H-corrole triiodide.

contd. B1

--79. The pharmaceutical composition according to claim 62 for inhibition of FGFR-3 tyrosine kinase activity and treatment of achondroplasia, comprising the compound 5-pentafluorophenyl-10,15,20-tris(N-methyl-4-pyridylium)-21H,23H-porphine triiodide.

--80. A 5,10,15,20-tetraaryl-porphyrin of the formula: Sub C4



wherein Ar_1 , Ar_2 , Ar_3 , and Ar_4, the same or different, are each an aryl radical selected from the group consisting of a carboaryl, a heteroaryl and a mixed carboaryl-heteroaryl radical, at least two of said aryl radicals being positively charged, n is an integer from 2 to 4 and X is a pharmaceutically acceptable anion, and wherein at least one of the non-positively charged aryl radicals, if present, is pentafluorophenyl or 4-amino(C_1-C_8)alkylamino-2,3,5,6-tetrafluorophenyl, and at least two of the positively charged aryl radicals are N-(C_1-C_8)alkyl-pyridylium or 4-(N-C_1-C_8 alkyl-pyridylium)-2,3,5,6-tetrafluoro-phenyl.

contd B1

--81. The porphyrin of claim 80 being selected from the group consisting of the compounds: 5-pentafluorophenyl-10,15,20-tris(N-methyl-4-pyridylium)-21H,23H-porphine triiodide; 5,15-bis(pentafluorophenyl)-10,20-bis(N-methyl-4-pyridylium)-21H,23H-porphine diiodide; 5,10-bis(pentafluorophenyl)-15,20-bis(N-methyl-4-pyridylium)-21H,23H-porphine diiodide; 5,10,15-tris(N-methyl-4-pyridylium)-20-(2,3,5,6-tetrafluoro-4-aminopropyl-amino-phenyl)-21H,23H-porphine triiodide and 5,10,15,20-tetrakis[4-(N-methyl-2-pyridylium) 2,3,5,6-tetrafluoro-phenyl]-21H,23H-porphine tetraiodide.

Sub C5

--82. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a tetrapyrrolic macrocycle selected from the group consisting of a 5,10,15,20-tetraaryl-porphyrin according to claim 80 and a 5,10,15-triaryl-corrole, wherein said aryl radical of the corrole compound is a carboaryl, a heteroaryl or a mixed carboaryl-heteroaryl radical and at least two of said aryl radicals are positively charged.

--83. A pharmaceutical composition according to claim 82 wherein said 5,10,15,20-tetraaryl-porphyrin is selected from the group consisting of the compounds: 5-pentafluorophenyl-10,15,20-tris(N-methyl-4-pyridylium)-21H,23H-porphine triiodide; 5,15-bis(pentafluorophenyl)-10,20-bis(N-methyl-4-pyridylium)-21H,23H-porphine diiodide; 5,10-bis(pentafluorophenyl)-15,20-bis(N-methyl-4-pyridylium)-

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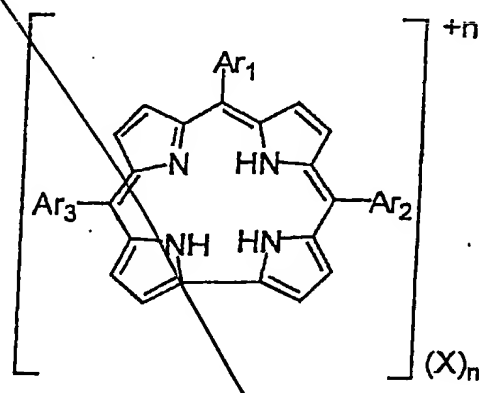
21H,23H-porphine diiodide; 5,10,15-tris(N-methyl-4-pyridylium)-20-(2,3,5,6-tetrafluoro-4-aminopropyl-amino-phenyl)-21H,23H-porphine triiodide and 5,10,15,20-tetrakis[4-(N-methyl-2-pyridylium) 2,3,5,6-tetrafluoro-phenyl]-21H,23H-porphine tetraiodide.

--84. A pharmaceutical composition according to claim 82 wherein the 5,10,15-triaryl-corrole has the formula:

Sub C6



wherein Ar_1 , Ar_2 , and Ar_3 , the same or different, are each an aryl radical selected from the group consisting of a carboaryl, a heteroaryl and a mixed carboaryl-heteroaryl radical, at least two of said aryl radicals being positively charged, n is an integer from 2 to 3 and X is a pharmaceutically acceptable anion.

--85. The pharmaceutical composition according to claim 84 wherein the 5,10,15-triaryl-corrole is the compound herein designated 5,10,15-tris[2,3,5,6-tetrafluorophenyl-4-(N-methyl-2-pyridylium)]-21H,23H-corrole triiodide.

--86. A method for inhibiting growth factor receptor tyrosine kinase activity comprising the administration of an inhibitor which is a tetrapyrrolic macrocycle selected from the group consisting of 5,10,15,20-tetraaryl-porphyrin and 5,10,15-triaryl-corrole, wherein said aryl radical is a carboaryl, a heteroaryl or a mixed carboaryl-heteroaryl radical and at least two of said aryl radicals are positively charged, in an amount sufficient to inhibit growth factor receptor activity.

--87. A method for inhibiting angiogenesis comprising the administration of an inhibitor which is a tetrapyrrolic macrocycle selected from the group consisting of 5,10,15,20-tetraaryl-porphyrin and 5,10,15-triaryl-corrole, wherein said aryl radical is a carboaryl, a heteroaryl or a mixed carboaryl-heteroaryl radical and at least two of said aryl radicals are positively charged, in an amount sufficient to inhibit angiogenesis.

--88. A method for prevention of restenosis after percutaneous transluminal coronary angioplasty comprising the administration of an inhibitor which is a tetrapyrrolic macrocycle selected from the group consisting of 5,10,15,20-tetraaryl-porphyrin and 5,10,15-triaryl-corrole, wherein said aryl radical is a carboaryl, a heteroaryl or a mixed carboaryl-heteroaryl radical and at least two of said aryl radicals are positively charged, in an amount sufficient to inhibit smooth muscle cell proliferation.

contd. B1 Sub C7

--89. A method for inhibiting primary tumor growth and metastasis comprising the administration of an inhibitor which is a tetrapyrrolic macrocycle selected from the group consisting of 5,10,15,20-tetraaryl-porphyrin and 5,10,15-triaryl-corrole, wherein said aryl radical is a carboaryl, a heteroaryl or a mixed carboaryl-heteroaryl radical and at least two of said aryl radicals are positively charged, in an amount sufficient to inhibit primary tumor growth and metastasis.--